

### Edwin B. Forsythe National Wildlife Refuge

### THE NATURE OF VOLUNTEERING

Explore the Wonders of Nature - Volunteer
Spring 2009



### Vol 3, No. 1

### DID YOU KNOW ...

### Eagle Cam

If you are looking for a special connection to nature, you can visit the U.S. Fish & Wildlife Service Eagle Cam through the use of your computer. On the grounds of the National Conservation Training Center in Shepherdstown, West Virginia, a camera has been positioned in a sycamore tree above the nest of a pair of bald eagles. For four years, viewers have watched the eagles in their natural habitat through the Eagle Cam. You'll find eagle fun facts, a diary of events, still image snapshots, and a blog. http://www.fws.gov/nctc/cam/

#### Beach Chair Scientist

The Beach Chair Scientist is anyone with an enthusiasm for learning about the science behind life in the ocean or along the seashore. The purpose of this website and blog is to bring a simplified perspective to the questions one might have while relaxing on the beach. For more info, go to <a href="https://www.beachchairscientist.com/">https://www.beachchairscientist.com/</a>

#### Refuges Host More Visitors

National Wildlife Refuges hosted 41 million visitors in 2008, up from 33 million visitors a decade earlier. Oregon recorded the most visitors at 3.9 million. Rounding out the top 10 list were Florida, California, North Carolina, Iowa, Oklahoma, Virginia, Wisconsin, Alaska and Minnesota.



AMERICA'S NATIONAL WILDLIFE REFUGES ... Wild Things

where wildlife comes naturally!

# The Climate Change Challenge for Fish and Wildlife Conservation

The potential for rapid and lasting climate warming poses a significant challenge for fish and wildlife conservation. Species' abundance and distribution are dynamic, relative to a variety of factors, including climate. As climate changes, the abundance and distribution of wildlife and fish will also change.

Climate warming will be a particular challenge for endangered, threatened and other "at risk" species. For



Observed warming in Alaska has been two to four times the global average, resulting in increased melting of glacial ice.
USFWS photo

example, the decline in Arctic sea ice is one of the greatest concerns for polar bears. Scientists have documented a dramatic decrease in sea ice coverage, and that ice is forming later in the fall and breaking up earlier in spring. Most climate models predict sea ice conditions will continue to degrade through this century, and some show little or no summer ice cover as early as mid-century. Others show it could be as long as 100 years. The Service is seeking information through scientific review by the U.S. Geological Survey (USGS) to determine which model is the most accurate.

The Service manages America's National Wildlife Refuge System and changing climate will force change in the stewardship of these lands.



Climate Change. continued on page 2

### INSIDE THIS ISSUE ...

Did you Know	1
Climate Change Challenge	
From the Director - As I Take the Helm	
View From the Tower - Terrapin Blocks	3
A Word from Our Friends	4
Stay Focused Photo Club	5
Connecting People with Nature	6
The Nation's Oldest Wildlife Protection Statue	
Why Should We Care About Pollinators?	7
Everything I Need to Know	8
Who's on Staff	
Upcoming Events	

### CHIEF'S

O R N E

### As I Take the Helm

By Greg Siekaniec Chief, National Wildlife Refuge System



Credit: USFWS

The National Wildlife Refuge System has changed a great deal since I last served eight years ago as deputy chief in the Washington Office. At the end of 2000, we had 530 national wildlife refuges, having established, among others, Big Oaks Refuge in Indiana and the then 66-acre Northern Tallgrass Prairie Refuge in my home state of Minnesota. Today, we have 550 units within the Refuge System.

In 1999, while I was still deputy chief of the Refuge System, an Assistant Director of the Division of Refuges and Wildlife not only oversaw refuges and realty, but also directed other programs, including the Fish and Wildlife Service's law enforcement, Office of Migratory Bird Management and Duck Stamps. Now, the Refuge System is a stand-alone program within the Fish and Wildlife Service.

Times have changed.

Not only does the National Wildlife Refuge System have an Assistant Director now – a position I am honored to occupy — but we have 550 units of the Refuge System, plus 37 Wetland Management Districts, together spanning more than 150 million acres. Those acres include the recently-established Pacific Remote Islands Marine National Monument, now managed by the Fish and Wildlife Service.

We have more than 200 Refuge Friends organizations. The National Friends conference to be held in late February will be the largest we've ever hosted, with about 500 people in Washington, DC, to show their support for the world's most important network of public lands devoted to wildlife and wildland conservation. The Cooperative Alliance for Refuge Enhancement (CARE) continues to urge Congress to provide the Refuge System with \$1 billion for green jobs as part of the nation's economic stimulus package.

In the midst of all of this – and so much more – I have been given the privilege of serving as Chief of the National Wildlife Refuge System.

That's far more than I dreamed of when I was growing up in Minnesota on the boundary of Tamarac National Wildlife Refuge. That's a great deal more than I imagined 24 years ago when I started my career as a refuge clerk at J. Clark Salyer Refuge, named for a man who may have been the greatest Refuge System Chief in our history.

There is a steep learning curve inherent in any new

position, and I have begun to move up that curve. One of our most pressing challenges is to plan our conservation strategies in the face of climate change. Others include funding for a Refuge System with growing responsibilities; strategic habitat conservation with partners who can help us ensure the long-term health of our precious resources; engaging our supporters in helping a new generation learn the joys of the outdoors; and enhancing leadership development for a workforce that too often is asked to do more with less.

For now, I am humbled to become even a small part of a Fish and Wildlife Service's history. I am energized by the millions of people who know that wildlife refuges are some of the best places to learn an appreciation of the natural resources that are the very foundation of our nation's greatness. And I hope to see you soon on a national wildlife refuge.

Climate Change. continued from page 1

Some challenges posed by a changing climate might include:

- · Changing fire regimes;
- Changing patterns of rain and snowfall;
- · Changing access to water resources;
- Altered hydrology in rivers and wetlands;
- Increased frequency of extreme weather events;
- Rising sea levels at our 177 coastal refuges.
- Changing abundance and distribution of fish, wildlife, and plant species.

Service managers already are seeing evidence of some of these effects in Alaska where observed warming has been 2-4 times that of global averages and change has been more rapid and visible.

Though other Service Regions likely will not be confronted with climate change impacts on the same scale or pace as Alaska, climactic changes in the lower 48 will amplify current management challenges involving habitat fragmentation, urbanization, invasive species, disease, parasites, and water management. Highly specialized or endemic species are likely to be most susceptible to the additional stresses of changing climate.

The Refuge System is considering climate change in future Comprehensive Conservation Plans, which provide a framework for guiding refuge management decisions. The system is also looking at how projected sea level rise could affect selected coastal refuges and how wildfire could change as the result of a warming climate. This is particularly important since 177 refuges are on the coast.

The Service is currently planning a series of regional forums to help collect information on the potential effects of climate change in coastal areas, mountains, prairies and other landscapes, and to identify ways we might better prepare for managing our valuable natural resources in the coming decades.

### Impoundment Management Update



You may have noticed the "view from the tower" looks a little different this year. Last year's May nor'easter breached the long dike in two sections. Due to the breaches, the William Vogt Pool (west pools) must be managed as one unit. Usually, we manage the northwest and southwest pools with different water levels, patterned with the spring and fall shorebird migration. This year, we will specifically manage for the fall shorebird migration. Currently, the water is being held at the full pool level. We will begin a slow drawdown over the course of the summer and obtain a drained pool by July 31. The pool will remain drained while we work to repair the water control structure on the north dike. The repair to the long dike will likely occur next year.

Ducks Unlimited engineers are conducting a bathymetric survey (the process of mapping the bottom elevation of the pool) of the entire west pool. The survey will help us accurately measure the interspersion of open mud flat, vegetation, and open water. This survey is also necessary to determine the most efficient and economical height of the long dike. Adding revetment to the slope of the dike will provide proper armoring, preventing future erosion.

Results of the bathymetric survey will be available this May.



By Kevin Holcomb, Refuge Biologist

# "Terrapin Blocks?" What are they?



The northern diamond-

back terrapin, Malaclemys terrapin terrapin, is a brackish water species that inhabits tidal creeks, shallow bays, and adjacent upland habitats of the salt marsh.

Increased motor vehicle traffic on the causeways between the mainland and the barrier islands of coastal southern New Jersey is a growing threat to diamondback terrapins. Development on the barrier islands has destroyed most of the sand dunes that originally served as the primary nesting site for terrapins.

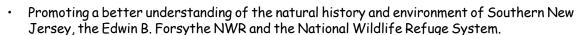
With the disappearance of sand dunes, females have had to find alternative nesting grounds, primarily the shoulders of roads crossing and adjacent to their native salt marshes. Embankments of causeways have proved to be a dangerous substitute for sand dunes, resulting in hundreds of terrapin road kills annually. As a result, each summer from late May to mid-July, thousands of gravid diamondback terrapins are struck by motor vehicles.

In 2004 researchers from the Wetlands Institute began to install temporary barrier fencing along the coastal causeways, in an attempt to reduce road mortality of nesting terrapins in areas known to be major "kill zones." During the breeding seasons of 2004–2008, barrier fencing was installed along heavily travelled causeways, resulting in 84–100% reduction of terrapin mortality.

The Wetlands Institute, in partnership with the Richard Stockton College Coastal Research Center and Ocean Coastal Consultants Inc., has developed a research project in support of the New Jersey Department of Transportation's Office of Maritime Resources (NJDOT/OMR) comprehensive long-term management strategy for dredging projects and dredged material placement. The project will identify locations that are suitable for restoration of terrapin nesting habitats with an emphasis on beneficial use of dredged material.

"Terrapin blocks" were developed by Continental Aggregates Corp LLC. The 12" x 8" x 8" blocks are manufactured with 40% dredge material, and weigh approximately 65 pounds each. Blocks are made out of solid concrete and are tinted with a terra-cotta coloring agent. A total of 150 blocks were made, which allowed us to create a wall approximately 75 feet long by 16 inches high.

The Friends of Forsythe NWR is a non-profit group established in 1998 to provide support and services to the Edwin B. Forsythe National Wildlife Refuge in Oceanville, New Jersey. Our goals are:





• Helping to preserve and enhance the wildlife habitat at this Refuge, and to assist the Refuge, the Refuge System and the U.S. Fish and Wildlife Service in a variety of educational and supportive efforts.

Please consider joining the Friends of Forsythe and help us accomplish these goals. Call 609-748-1535 or visit www.friendsofforsythe.org



### More than 200 Nonprofit Groups Work on Behalf of National Wildlife Refuges

Record Turnout for National Friends Conference

The Washington, DC, hotel's halls and rooms were brimming with stories of success as a record number of Friends and staff of national wildlife refuges came together February 21-23 for the largest National Friends Conference held in the history of the Refuge Friends movement. There are more than 200 nonprofit Refuge Friends organizations that work across the country on behalf of national wildlife refuges in their communities.

Nearly 300 Refuge Friends joined about 150 U.S. Fish and Wildlife Service staff to discuss such central issues as the impact of climate change on national wildlife refuges, the vitality of citizen science programs, and how the nonprofit organizations can grow. Refuge Friends organizations now boast more than 50,000 members nationwide, working on behalf of the National Wildlife Refuge System - the world's most extensive network of public lands devoted to wildlife habitat and wildlife conservation.

The conference was sponsored by the U.S. Fish and Wildlife Service and the National Wildlife Refuge Association. It featured nearly two dozen training sessions and special forums in three tracks: Refuge System resource challenges; tools, programs and strategies for success; and Friends capacity building.

About 230 national wildlife refuges were represented by the 160-plus Friends groups that sent delegates to the conference, which carried the theme "Friends Unite!" Forty-nine states were represented at the 2009 National Friends Conference.

"More than numbers, what was important was the enthusiasm," said Service Assistant Director, National Wildlife Refuge System, Greg Siekaniec. "The 'Friends Unite!' theme was selected because it is the strength of a unified and informed Refuge Friends movement that will help ensure a future in which the National Wildlife Refuge System and the wildlife it protects will thrive."

"Throughout the conference, Friends representatives

showed not only an understanding of the Refuge System as it exists today, but also a vision for what it will become in the decades ahead," said National Wildlife Refuge Association President Evan Hirsche. "National wildlife refuges face some of their greatest challenges today, from climate change to water quality and availability, to the impacts of local land use decisions on wildlife habitat. Fortunately, Friends have always risen to the occasion during hard times."

"What I always like best about conferences like these is the networking possibility," observed Nancy Menasco, president of Friends of Red River NWR in Louisiana and one of the conference delegates. "You come away with ideas from people throughout the Refuge System and from other Friends groups. You



get a sense of being part of something much larger than your organization."

Barry and Eleanore Keefe, Steve Atzert, Bonnie Putney, Ed Bristow meet with new Cape May NWR Friends Group representatives Shawn Lockyear, Christina Frank, and Refuge Manager Howard Schlegel.

Congratulations to NWRS 2009 Volunteer of the Year, Marie Springer, who logged more than 2,000 hours of volunteer time for Wallkill River NWR and the Refuge System. Marie volunteered at Forsythe as well, collecting and documenting native bees with

the help of some of our volunteers (see article on page 7).



### News from





Our resident photo club began its eighth year at their January meeting with a presentation by noted professional photographer, Bill Horin. Bill is one of the founders of the Visualize Photogra-

phy Foundation, an affiliate of the Noyes Museum of Art in Oceanville, NJ. His presentation centered around creative ways of photographing people as well as photographing creative people. Members learned a new acronym from Mr. Horin: CLICK.

- C for COMPOSITION
- L for LIGHT
- I for IMAGINATION
- C for COMMUNICATION
- K for KNOW WHEN TO SHOOT

Check out Bill's website for more photo tips:

### www.billhorinphotography.com

Club members snuck out of their homes quietly for our February meeting before their significant others could realize that it was Valentine's Day. Who could blame them for wanting to attend yet another encore presentation by Eric Weeks, noted area professional photographer who was actually the club's very first guest speaker in January of 2002. This time Eric spoke about what judges look for in photo competitions. He condensed the Professional Photographers Association list of 12 key elements of meritworthy photographs into 3 crucial areas:

- 1. Wow-impact, creativity, style, center of interest, subject matter, and technique.
- 2. Image Quality-composition, presentation, color balance, harmony, lighting, and print quality.
- 3. The Story-what the image communicates to the viewer and the power of the image to affect the feeling of the viewer.

Eric's website is <u>www.ezmemories.com</u> The sample photos on the site clearly demonstrate that Eric follows his own photo tips.

Members were also entertained during the "Time to Shine" portion of the February meeting by surprise appearance of the Groucho Marx character, Captain Spaulding the animal explorer, attired in safari jacket, pith helmet, and of course, a long cigar dangling from his right hand. It was our own beloved, Dr. Ed Bristow, former president of both Atlantic Audubon Society and the Friends of Forsythe. Dr. Bristow proceeded to show us

how simple it was to pop open a photo blind, which is similar to a pop-up tent covered in a green and brown camouflage design. Much like the blinds used by hunters to hide from the birds they wish to shoot, the photo blind solves the problem faced by most nature photographers: shooting the bird before it flies away. Although at key moments in his presentation Dr. Bristow's Groucho Marx character began to morph into Woody Allen's character in Play it Again, Sam, he eventually succeeded in setting up the blind in a very short time period. At the March meeting Dr. Bristow will literally take his show on the road and set up the photo blind at a key viewing point on the Forsythe Refuge. This time our cameras will be ready to photograph the action.

February was also a month in which the club lost its most senior member, Dr. Herb Cahan. Along with his wife, Barbara, he was one of the charter members of the club. Dr. Cahan was born in 1917, graduated from Atlantic City High School and Temple University School of Dentistry. He was the founder and president of the New Jersey Dental Society. He was an Army captain who fought at the battle of the Bulge and was later a member of the Jewish American War Veterans. In 2004. Dr. Cahan attended the dedication of the World War II Memorial in Washington, DC. He used retirement to explore new interests. He traveled extensively, always taking pictures with his ever-handy Minnox camera. Communicating on his ham radio, people knew him as "KB2PR". In his 80s, Dr. Cahan became an artist first as a sculptor and then as a painter. In his quiet way, Dr. Cahan was always there when needed by friends and family. He was an active member of the South Jersey community by serving as president of Avoda, a Jewish service group giving scholarships to deserving students; as a volunteer at the Atlantic City Aquarium; on the board of Shalom House, a senior housing community; and as an ever-present member of the Beth Judah synagogue. He was a Shriner and a member of the Belcher Masonic Lodge. The Boy Scouts of America had always been an active part of his life, where he was among the first scouts to attend Camp Edge. As an adult he continued his involvement by serving as a Boy Scout Commissioner and later receiving the Silver Beaver award. He will be missed by his friends at Stay Focused Photo Club.

Our Environmental Education Committee has been busy! Members have participated in bi-weekly trips to the Leeds Avenue Elementary, in Pleasantville's, NJ After 3 program where Thursday afternoons were filled with lessons about protecting wildlife habitat and endangered species, as well as, visits from TR Bear. Fridays got a little noisy with "Songs of the Refuge" sing-alongs with our own Barry Keefe.



If that weren't enough, we also visited the Galloway Charter School's fifth grade classes every Tuesday in March. Students learned about endangered species, constructed mobile food chains, and made their own wetlands models.

The Shore Explorer Homeschool Co-op has also been visiting the refuge on a monthly basis. In January, the group of 5- to 14-year olds learned about winter forest ecology. February brought with it cooler weather and a waterfowl lesson. March activities consisted of the "Bird Olympics" where the children compared there own abilities with those of birds. Boy where they surprised to learn that they can only flap their "wings" 12 times in 10 seconds compared to a hummingbirds 700 times! The explorers also created their own birds made out of household items.

And things haven't even begun yet! April will bring with it the beginning of days filled with school field trips, Earth Day, and the celebration of Children and Nature Awareness Month. Interested in helping us out? Call Art or Sandy for a list of upcoming activities for the spring.

"If you want one year of prosperity, plant corn. If

you want ten years of prosperity, plant trees. If you want one hundred years of prosperity, educate people."— Chinese proverb



# What is the nation's oldest wildlife protection statue?

The Lacey Act was the first <u>federal conservation law</u> that protected wildlife <u>across the nation</u>. It was introduced by Iowa Rep. John F. Lacey and signed into law by President William McKinley on May 25, 1900.

The Lacey Act provides that it is unlawful for any person to import, export, transport, sell, receive, acquire, or purchase any fish or wildlife or plant taken, possessed, transported, or sold in violation of any law, treaty, or regulation of the US or in violation of any Indian tribal law whether in interstate or foreign commerce.

The <u>oldest federal Act</u> is actually the Act of July 27, 1868 that prohibited the killing of certain furbearing animals in the territory and waters of Alaska. That was repealed in 1944. Many think the Lacey Act (1900) is the first federal wildlife protection act, but, after the 1868 act designed to protect fur seals, it is actually the Yellowstone Park Protection Act (1894) that made it a federal offense for killing wildlife within the Park's borders. Congressman John Lacey also sponsored that Bill. He was robbed in a stagecoach in the Park, but even though the robbers were apprehended, no state law applied within the Park and there was no federal act that applied. There was also no way to prosecute poachers who were decimating elk, so the Act allowed poachers to be prosecuted. Lacey was a member of the Boone and Crockett Club, and its co-founder (along with T. Roosevelt) was George Bird Grinnell who championed the protection of Yellowstone's wildlife from market hunters.

If you factor in State, local (or colonial) law, the oldest wildlife protection act in America is a law passed in Portsmouth, Rhode Island in 1646 ordering the closing of deer hunting. "Why did they need to close it to deer hunting?" you may ask. John's response: "Land clearing and overharvest reduced the deer population. Other colonies followed. Grinnell was Roosevelt's mentor in conservation. They met after Grinnell reviewed TR's book "Hunting Trips of a Ranchman" in his journal Forest and Stream in 1885. Grinnell gave it a favorable review, but criticized TR for perpetuating myths about big game in the west. TR took offense and went to meet with him. He realized Grinnell had a lot more expertise (Ph.D. from Yale and naturalist on Custer's first expedition in the early 1870's). They discussed how much big game had declined from the 1870's to the 1880's when TR first went west, and Grinnell told him we needed a program for conservation. Two years later they formed the Boone and Crockett Club together and the rest as they say is history." from USFWS BA News with special thanks to John Organ who works in our Federal Aid office in Hadley, MA (our regional office).

### Why Should we Care About Pollinators?



Epeolus cruciger, Nigel Jones, UK

Happy insect! what can be
In happiness compared to thee?
Fed with nourishment divine,
They dewy morning's gentle wine,
Nature waits upon thee still,
And thy verdant cup does fill;
Tis filled wherever thou dost tread,
Nature's self thy Ganymede.

Pollinators, such as bees, birds, bats and other insects, play a crucial role in flowering plant reproduction and in the production of most fruits and vegetables.

Examples of crops that are pollinated include apples, squash, and almonds.
Without the

assistance of pollinators, most plants cannot produce fruits and seeds. The fruits and seeds of flowering plants are an important food source for people and wildlife. Some of the seeds that are not eaten will eventually produce new plants, helping to maintain the plant population.

Honey bees pollinate approximately \$15 Billion worth of crops in the U.S. each year. The value of pollination services provided by native bees and other wildlife is even greater. It is estimated that honeybees only pollinate 15% of the most common food crops worldwide.

A recent study of the status of pollinators in North America by the National Academy of Sciences found that populations of honey bees (which are not native to North America) and some wild pollinators are declining. Colony Collapse Disorder (CCD) is the name given to the current ailment striking honey bee colonies in the United States. In affected colonies, the worker bees leave the hive and never return, leaving only the egglaying queen, brood and a few attendants. There are a variety of theories as to what is causing the collapse of honeybee colonies, including: stress leading to a weakened immune system, varroa mites (a parasite known to attack honey bees), a pathogen (such as a virus, bacteria or fungus), stress from the movement of colonies, and/or sublethal effects of pesticides. Sublethal means it does not cause death. The U.S. Department of Agriculture Agricultural Research Service is collaborating with several universities to determine the cause of Colony Collapse Disorder as part of the Colony Collapse Disorder Working Group.

Declines in wild pollinators may be a result of habitat loss and degradation, while declines in man-

aged bees is linked to disease (introduced parasites and pathogens). For more information, check out the FWS website at http://www.fws.gov/Pollinators/

One of the study areas for the 2008 USFWS Region 5 Native Bee Study was conducted at Forsythe Refuge headed by Marie



Springer with help from refuge volunteers Al Martens, Debbie Conrad, and our interns.

#### Terrapins. continued from page 3

In 2008, the wildlife drive at Edwin B. Forsythe NWR was selected to test the integrity of a new barrier system. The proximity to Turtle Cove and the presence of slow moving vehicular traffic makes this site ideal. The blocks are periodically checked for evidence of cracking, warping and discoloration.

Dredged material management is an evolving process that must incorporate the economic and recreational value of State navigation channel access, available placement and management options, and beneficial use applications.

The use of terrapin barriers is an effective means of reducing vehicle-related mortality in nesting female terrapins. Further research is required to determine the longevity of the dredge material.

This April, students from Moorestown Friends School and Stockton College of NJ, installed the remaining fence needed to extend the barrier to the existing rip-rap to the east and the channel to the west. Kline Construction Company of Absecon, volunteered their time and equipment to dig the trench for the fence installation.

Completion of all this work at Forsythe would not be

possible without the dedication and commitment of the
many volunteers
who contribute
their time and
talents. As
always, we are
looking forward to working with you on
the Refuge.



## Everything I Need to Know, I Learned from a Tree



It's important to have roots.

In today's complex world, it pays to branch out.

If you really believe in something, don't be afraid to go out on a limb.

Be flexible so you don't break when a harsh wind blows.

Sometimes you have to shed your old bark in order to grow.

If you want to maintain accurate records, keep a log.

Grow where you're planted.

It's perfectly okay to be a late bloomer.

Avoid people who would like to cut you down.

Get all spruced up when you have a hot date.

If the party gets boring, just leaf.

You can't hide your true colors in the autumn of your life.

It's more important to be honest than poplar.

- text by Sally Deems-Mogyordy

### WHO'S ON STAFF?

Project Leader
Steve Atzert

Deputy Project Leader
Brian Braudis

Chief of Visitor Services

Art Webster

Wildife Biologists
Vinny Turner
Kevin Holcomb

Refuge Law Enforcement Officer

Chris Pancila

Administrative Officer

Martha Hand

Volunteer Coordinator Sandy Perchetti

Maintenance Professionals
Tom Holdsworth
Roger Dutch





Edwin B. Forsythe National Wildlife Refuge P.O. Box 72, Great Creek Road Oceanville, NJ 08231 609-652-1665 http://www.fws.gov/northeast/forsythe

### THE NATURE OF VOLUNTEERING